

Proposed Plan for Areas 6A and 10A Libertyville Training Site Vernon Hills, Illinois

June 2001

EPA Region 5 Records Ctr.



349623

INTRODUCTION

The U.S. Navy, the lead agency for the environmental restoration at the Libertyville Training Site, is issuing this **Proposed Plan** for Area 6A, the former NIKE missile magazine, and Area 10A, a former disposal area, so the public can comment on the Navy's recommendation of no further response action for these sites. This Proposed Plan was prepared according to published guidelines in three pieces of environmental legislation: CERCLA, SARA, and the **National Contingency Plan**. The Navy, in consultation with the USEPA and IEPA, will not issue a final decision until public comments are considered.

This plan highlights key points from the Area 6A and 10A **EE/CA, Closure Report**, and other related documents that are available to the public in the **BRAC Information Repositories** at the Vernon Area Public Library and the Vernon Hills Village Hall, and in the **Administrative Record** at the Great Lakes Naval Training Center in Great Lakes, Illinois (listed on page 6).

To help you understand this fact sheet:

Acronyms in the text are defined as follows, listed in the order in which they appear.

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (1980)
SARA	Superfund Amendments and Reauthorization Act (1986)
USEPA	United States Environmental Protection Agency
IEPA	Illinois Environmental Protection Agency
EE/CA	Engineering Evaluation/Cost Analysis
BRAC	Base Closure and Realignment
LTS	Libertyville Training Site
NAS	Naval Air Station
DoD	Department of Defense
LBP	Lead-based paint
ACM	Asbestos-containing material

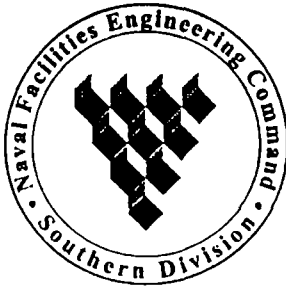
Terms that appear in bold are defined in the glossary on page 7.

PUBLIC COMMENTS

The U.S. Navy relies on public comments to ensure that community concerns have been considered. To encourage public participation in making the final decision, the Navy will accept written comments from June 8 to July 9, 2001. If requested, the Navy will hold a public meeting on the Proposed Plan. Comments will be summarized and addressed in the **Decision Document** for this site. You can use the form at the back of this fact sheet to write down your comments or request additional information. All comments should be postmarked by July 9.

This fact sheet includes:

- | | |
|--|----------|
| ▶ Information on the public's role in helping the Navy make a final decision | pg. 1, 6 |
| ▶ Site background information | pg. 2 |
| ▶ Evaluation criteria for remedial alternatives | pg. 5 |
| ▶ Rationale for no further action | pg. 6 |



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SITE BACKGROUND

The 164-acre Libertyville Training Site, also known as the NIKE missile site, is approximately 30 miles north of downtown Chicago, and was closed in 1993 as a result of the Base Closure and Realignment Act of 1990. The LTS was acquired by the Navy in 1945 for use as an auxiliary airfield and training site for the former NAS Glenview. In 1954, the LTS was transferred to the Army for use as a NIKE missile facility. In 1972, the Navy resumed control of the site intending to use it for NAS Glenview housing. This use never occurred and the LTS was used for local military and civilian firearms training. The LTS has been unoccupied open space for 37 years. As of February 2001, approximately 156 acres of the LTS have been transferred to the community and redevelopment of the property is underway. The Navy investigated Areas 6A and 10A, shown in Figure 1, under BRAC to determine whether past usage has resulted in environmental contamination.

Area 6A includes three underground concrete NIKE missile magazines and the surrounding ditches. The magazines were used to store NIKE missiles from 1954 to 1963. To prevent trespassers from entering the magazines, the Navy has blocked access to them. Magazine 1 is empty, but Magazines 2 and 3 are full of water. A visual inspection of Magazine 1 indicated that most equipment has been removed. The only remaining items are empty electrical boxes, some piping, and a hydraulically operated elevator used to raise NIKE missiles from the magazine to the ground surface. Based on available information, conditions in Magazine 1 are considered typical of all three magazines. The remainder of Area 6A is vegetated with grass, brush, and trees.

Area 10A is an open grassy area with some shrubs that includes a formal disposal area. This site is near the fenceline on the east side of the LTS. Review of available drawings and aerial photographs showed a possible munitions bunker. Because of concerns regarding the possible burial of munitions, an **electromagnetic survey** and an **unexploded ordnance survey** were conducted. During these investigations, no munitions were found, although buried debris was discovered onsite. Results of further investigation by trenching indicated the site was used for debris disposal in the past.

SITE CHARACTERISTICS

The nature and extent of site contamination were investigated by record searches, inspections, and soil sampling. In 1997, a site inspection identified areas of potential environmental concern in both Areas 6A and 10A. In Area 6A, areas of potential environmental concern were the NIKE missile Magazine 1 and the drainage ditches surrounding the missile magazines. The site inspection for Area 6A also noted various debris, bricks, lumber/wood, and appliances dumped in the drainage ditches by trespassers. Paint samples from the missile magazine contained lead, and ceiling and wall samples contained asbestos. It is Navy and DoD policy to leave LBP in place when the structure is not a residence. Because the ACM in the magazines is not friable, DoD and Navy policy is to leave it in place. The Navy will notify the recipient of the property that LBP and ACM are present in the magazines. Based on the sampling results, Area 6A showed a possible threat to human health and the environment from two common contaminant types in soil: **metals** and **polynuclear aromatic hydrocarbons**.

The area of potential environmental concern in Area 10A is the former disposal area. A sample from the insulation of a buried demolished guard shack contained asbestos. Soil sampling indicated an area of lead contamination in the northwest corner of Area 10A. Based on the sampling results, Area 10A showed a possible threat to human health and the environment from two common contaminant types: **metals** and **asbestos**.

SCOPE AND ROLE

The site investigation indicated that remediation of surface and shallow subsurface soil was required at three sites in Area 6A and one site in Area 10A. In addition, removal of buried debris was required in Area 10A. As the final response action to be taken, the Navy proposed a non-time-critical removal action under CERCLA. An EE/CA was prepared to assess risk to human health and the environment from these sites and evaluate remedial alternatives for reducing this risk.

SUMMARY OF SITE RISKS

Excess risk to human health was assessed for three land use scenarios: construction worker, recreational user/trespasser, and residential. The pathways of exposure included incidental ingestion, inhalation, and dermal contact with contaminated surface and subsurface soil. A risk level was determined for potential cancer-causing chemicals based on the concentration of the chemical present and its strength as a cancer-causing agent. A risk range of 10^{-4} to 10^{-6} is generally considered acceptable for the protection of human health. This range would mean an increased chance of no more than one additional case of cancer in 10,000 people (10^{-4}) to one in one million (10^{-6}). Chemicals producing harmful effects other than cancer were compared with reference doses (highest levels not causing harmful effects) to calculate a hazard quotient. A hazard quotient above 1 or risk greater than 10^{-4} indicate that **cleanup** may be needed to reduce potential exposure to a safe level. Cancer risk and noncancer hazard at Areas 6A and 10A exceeded these thresholds for one or more chemicals for the residential, trespasser, and construction worker scenarios, indicating an unacceptable risk or hazard.

The ecological risk evaluation indicated that chemicals in the soil at Areas 6A and 10A would adversely affect wildlife. Groundwater is not considered a pathway of environmental concern because the investigations indicate it has not been impacted by activities at Areas 6A and 10A.

REMEDIAL ACTION OBJECTIVES

The goal of the site cleanup was to reduce soil contaminants to levels that protect human health. Under BRAC, most of the former LTS, including Areas 6A and 10A, is being transferred to local school districts and the Village of Vernon Hills. The proposed future use of Areas 6A and 10A is storm water management. Area 6A will be converted to a storm water detention pond, and portions of Area 10A also will be used for storm water detention. The Navy chose to remediate the property to residential standards, which are more protective of human health than other land-use categories.

SUMMARY OF REMEDIAL ALTERNATIVES

In 1999, the Navy conducted an EE/CA to determine the best way of reducing risk. The remedial alternatives evaluated are listed below, and a detailed description of each is presented in the EE/CA.

- ① *No action.*
- ② *Soil excavation and disposal.*
- ③ *Engineered barrier.*

EVALUATION OF REMEDIAL ALTERNATIVES

Each remedial alternative was evaluated and compared to one another according to the nine criteria described below. A detailed comparison of each alternative according to these criteria can be found in the EE/CA.

Evaluation Criteria	Overall Protection of Human Health and the Environment
In selecting a preferred remedial alternative, the Navy uses the criteria developed in the EE/CA.	Assesses degree to which the alternative eliminates, reduces, or controls health and environmental threats through treatment, engineering methods, or institutional controls.
The first two must be met before an alternative is considered further.	Compliance with Applicable or Relevant and Appropriate Requirements
The next five are used to further evaluate options.	Assesses compliance with federal/state requirements.
The final two are then used to evaluate the remaining options after comments have been received from the community, USEPA, and IEPA.	Cost
	Weighs remedial alternative benefits against the implementation cost.
	Implementability
	Refers to the technical feasibility and administrative ease of using the remedial alternative.
	Short-Term Effectiveness
	Potential impacts of construction or implementation of the remedial alternative in the process of achieving cleanup goals.
	Long-Term Effectiveness and Permanence
	Degree to which a remedial alternative can maintain protection of health and environment after cleanup goals have been met.
	Reduction of Toxicity, Mobility, or Volume Through Treatment
	The treatment's expected performance in reducing nature, movement, or amount of contaminant(s).
	State Acceptance
	Consideration of state's opinion of the preferred remedial alternatives.
	Community Acceptance
	Consideration of public comments.

PREFERRED REMEDIAL ALTERNATIVE

Based on the comparison of alternatives in the EE/CA, the Navy identified soil excavation and disposal as its preferred course of action because it is protective of human health and the environment, complies with federal and state requirements, and is cost-effective. It also eliminates the need for additional remediation. In addition, buried debris at Area 10A was removed.

The major components of the action were:

- ▶ Excavation of contaminated surface and subsurface soil presenting an unacceptable risk to future site users.
- ▶ Offsite disposal of excavated soil as special waste in a permitted landfill.
- ▶ Collection of soil samples to confirm that the removals met established cleanup goals.
- ▶ Site restoration, which included backfilling the excavations with clean soil.

A non-time-critical removal action was conducted at Areas 6A and 10A from November 2000 through January 2001. The Navy removed approximately 2,250 cubic yards of contaminated soil from three sites in

Area 6A and 60 cubic yards of contaminated soil from one site in Area 10A. The removed soil was replaced with uncontaminated backfill. In addition, 20 cubic yards of debris were removed from Area 10A. Details are summarized in the Closure Report.

SUMMARY OF RESIDUAL SITE RISKS _____

Results of confirmation sampling, presented in detail in the Closure Report, indicated all contaminants of concern have been reduced to levels below human health risk-based cleanup requirements for residential property or established background concentrations. The soil removal resulted in elimination of ecological risks as well. Therefore, the site is suitable for residential/unrestricted reuse.

RECOMMENDATION OF NO FURTHER RESPONSE ACTION _____

Because the remaining contaminants at Areas 6A and 10A do not pose unacceptable risk, no further response is necessary to protect human health and the environment. All of the documents that support this recommendation are in the Administrative Record and Information Repositories for the Libertyville Training Site.

We encourage you to review and comment on this Proposed Plan. Refer to the EE/CA and Closure Report at the locations listed below for additional information.

SUPPORT AGENCY COMMENTS _____

The USEPA and IEPA have reviewed this Proposed Plan, EE/CA, and Closure Report and support the Navy's recommendation of no further action at Areas 6A and 10A.

COMMUNITY PARTICIPATION _____

The Navy issues this Proposed Plan as part of its public participation program and encourages community involvement. Public notices stating that the EE/CA was available for review were published in the *Libertyville Daily Herald*, *Libertyville Review*, *Mundelein Review*, and *Vernon Hills Review*. A public-comment period was held from May 15 to June 15, 2000, to encourage the public's participation in selection of the remedial alternative. No written comments were received.

Background and other information on the environmental program (including investigation reports, work plans, and a community relations plan) can be found in the Administrative Record and Information Repositories established for the public by the Navy.

Great Lakes Naval Training Center
201 Decatur Avenue
Great Lakes, Illinois 60088
847-688-5999

Vernon Area Public Library
300 Old Half Day Road
Lincolnshire, IL 60069
847-634-3650

Vernon Hills Village Hall
290 Evergreen Drive
Vernon Hills, IL 60061
847-367-3700

Mon.-Fri. 9 a.m. to 3 p.m.

Mon.-Thurs. 9 a.m. to 9 p.m.
Fri.-Sat. 9 a.m. to 5 p.m.
Sun. 12 noon to 5 p.m.

Mon.-Fri. 8:30 a.m. to 5 p.m.

GLOSSARY

This glossary defines terms used in this Proposed Plan. The definitions apply specifically to this Proposed Plan and may have other meanings when used in different circumstances.

Administrative Record: The collection of environmental documents, available for public review, that chronicles the decision-making process leading to a final remedy.

Asbestos: A mineral fiber that can pollute air or water and cause cancer or asbestosis when inhaled. EPA has banned or severely restricted its use in manufacturing and construction.

Cleanup: Actions taken to address a release or threatened release of hazardous substances that could affect public health and/or the environment.

Closure Report: A document that summarizes cleanup activities for a site and evaluates residual risk to human health and the environment.

Decision Document: A public document that explains which remedial alternative will be used at a site. It is based on information and technical analysis generated during the EE/CA and Removal Action and considers public comments and community concerns.

Electromagnetic Survey: A way to measure the conductivity of soil by using magnetism that is developed by a current of electricity. Differences in soil conductivity can be an indication of buried materials.

Engineering Evaluation/Cost Analysis (EE/CA): An analysis of remedial alternatives for a site. The EE/CA must be made available for a 30-day public comment period before action is taken.

Information Repository: A public collection containing information, technical reports, and reference documents for a site.

Metals: Metals are naturally occurring elements in the earth, characterized by their luster and ability to conduct heat and electricity. Exposure to some metals, such as lead, can have a toxic effect, while other metals such as iron and potassium are essential to the metabolism of animals and humans.

National Contingency Plan: Regulations which implement CERCLA provisions for responding to releases of oil and hazardous substances.

Polynuclear Aromatic Hydrocarbons: A class of organic compounds having multiple benzene-ring structures. They occur in petroleum products as well as in coal and coal tar.

Proposed Plan: A public participation requirement in which the lead agency summarizes for the public the evaluation of remedial alternatives, the preferred cleanup strategy and the rationale for the preference. This document must actively solicit public review and comment on all alternatives under consideration.

Unexploded Ordnance Survey: A survey to determine the presence of military munitions that failed to function as intended and were disposed of by burying.

Commander
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Gary Schafer
USEPA, Federal Facilities Section
77 East Jackson Blvd.
Chicago, IL 60604



USE THIS SPACE TO WRITE YOUR COMMENTS

[illegible]

Phone #: _____

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